

REMARKS

General Remarks

Upon entry of the amendments, claims 19 and 20 will be all the claims pending in the application. Claims 9 and 11 are canceled. No new matter is introduced; consideration and entry of the amendment are respectfully requested. Applicant thanks the Examiner for withdrawing the rejection under 35 U.S.C. § 112, first paragraph, as well as objections to the drawings under 37 C.F.R. § 1.83(a) in view of Applicant's remarks submitted April 22, 2008.

Claim Objections

At page 2 of the Office Action, the Examiner objects to the use of "n" in claims 19 and 20 and requests that Applicant define a range of "n" in the claim language. Applicant thanks the Examiner for explaining the Examiner's position. Applicant has carefully studied the Examiner's comments, and respectfully requests the Examiner to consider the following points.

First, Applicant notes that the claim is merely objected to for an informality, not rejected as being indefinite. In fact, the claim does not suffer from an informality, and Applicant respectfully submits that the claim is proper. Applicant further respectfully submits that there is no statutory basis for maintaining the objection.

Applicant submits that it is very well known that a time division multiplex is composed of n channels of 64 kbits/s, with $n = 24, 30, 120, 480, 1920$, etc., and that it is very well known that the number "n" can have a very high value and is chosen as a function of the number of subscribers to be connected. Time division multiplex can be found in Applicant's published application, for example, at [0037], [0044], and [0060].

The well known nature of time division multiplexing in “ $n \times 64$ kbit/s” can be also seen in contemporary reference articles on the subject. The following is an excerpt discussing the nature of time division multiplexing:

“In circuit switched networks such as the Public Switched Telephone Network (PSTN) there exists the need to transmit multiple subscribers’ calls along the same transmission medium. To accomplish this, network designers make use of TDM. TDM allows switches to create channels, also known as tributaries, within a transmission stream. A standard DS0 voice signal has a data bit rate of 64 kbit/s, determined using Nyquist’s Sampling Criterion. TDM takes frames of the voice signals and multiplexes them into a TDM frame which runs at a higher bandwidth. So if the TDM frame consists of n voice frames, the bandwidth will be $n \times 64$ kbit/s.

Each voice frame in the TDM frame is called a channel or tributary. In European systems, TDM frames contain 30 digital voice frames and in American systems, TDM frames contain 24 digital voice frames. Both of the standards also contain extra space for signalling (see Signaling System 7) and synchronisation data.

Multiplexing more than 24 or 30 digital voice frames is called Higher Order Multiplexing. Higher Order Multiplexing is accomplished by multiplexing the standard TDM frames. For example, a European 120 channel TDM frame is formed by multiplexing four standard 30 channel TDM frames. At each higher order multiplex, four TDM frames from the immediate lower order are combined,

creating multiplexes with a bandwidth of $n \times 64$ kbit/s, where $n = 120, 480, 1920,$
etc.”

(“Transmission using Time Division Multiplexing (TDM),” en.wikipedia.org/wiki/Time-
division_multiplexing#Transmission_using_Time_Division_Multiplexing_.28TDM.29, citations
omitted)

The Examiner recognizes that “n” can take any value, making the scope of the remaining
claims broad. Breadth is not indefiniteness. Accordingly, Applicant submits that defining the
range of “n” is not necessary to a technical understanding of the phrase “ $n \times 64$ kbit/s.” Persons
active in this field understand the term and would not be confused at the scope of its meaning.

Reconsideration and withdrawal of the objection are therefore respectfully requested.

Conclusion and request for telephone interview

In view of the above, reconsideration and allowance of this application are now believed
to be in order, and such actions are hereby solicited. If any points remain in issue which the
Examiner feels may be best resolved through a personal or telephone interview, the Examiner is
kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

/Kelly G. Hyndman 39,234/
Kelly G. Hyndman
Registration No. 39,234

Date: July 9, 2008